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ABSTRACT

This study attempted to induce empathy toward a hypothetical individual in an effort to reduce aggressive responses directed toward him. Forty fourth grade volunteer boys from two Michigan public schools were administered the Index of Empathy for Children and Adolescents to determine pre-existing empathic potential (EP). Subjects were matched for EP and assigned to either an experimental or control group. Experimental subjects were given sad information about the hypothetical boy and were told to imagine themselves in his place. Control subjects were given neutral information about the boy not designed to evoke empathy. The character was then described as behaving obnoxiously toward an imaginary victim on four occasions. Following each of the four scenarios, subjects were asked how the victim would respond. Subjects' responses were coded for aggressiveness. The results revealed that the mean aggressive score of the experimental group's responses was significantly lower than that of the control group for the first story administered. Experimental subjects with high EP were rated significantly lower on the aggressiveness of their responses to the first story than were other experimental subjects. Significantly fewer experimentals than controls said the victim would choose aggressive retaliatory responses on one or more of the four occasions. These findings support the hypothesis that empathy arousal can reduce the experience and expression of aggression. (Author/NB)

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EXPERIMENTALLY INDUCED EMPATHY AND ITS ROLE IN REDUCING AGGRESSION

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ABSTRACT

PREVIOUS RESEARCH HAS INDICATED AN INVERSE CORRELATION BETWEEN GENERAL PREEXISTING EMPATHY LEVELS IN BOYS AND THEIR OVERALL LEVELS OF AGGRESSIVENESS. IN THE CURRENT STUDY AN ATTEMPT WAS MADE TO INDUCE EMPATHY TOWARD A PARTICULAR HYPOTHETICAL INDIVIDUAL IN AN EFFORT TO REDUCE AGGRESSIVE RESPONSES DIRECTED TOWARD HIM.

EXPERIMENTAL Ss WERE GIVEN SAD INFORMATION ABOUT A HYPOTHETICAL OTHER AND TOLD TO IMAGINE THEMSELVES IN HIS PLACE. CONTROL Ss WERE GIVEN "NEUTRAL" INFORMATION ABOUT THE CHARACTER WHICH WAS NOT DESIGNED TO EVOKE EMPATHIC FEELINGS. THE CHARACTER WAS THEN DESCRIBED AS BEHAVING OBNOXIOUSLY TOWARD AN IMAGINARY VICTIM ON FOUR OCCASIONS.

THE MEAN AGGRESSIVE SCORE OF THE EXPERIMENTAL GROUP'S RESPONSES WAS SIGNIFICANTLY LOWER THAN THAT OF THE CONTROL GROUP FOR THE FIRST STORY ADMINISTERED. IN ADDITION, Ss WITHIN

THE EXPERIMENTAL GROUP WHO HAD PREVIOUSLY SCORED HIGH ON A TEST OF EMPATHIC POTENTIAL (EP) WERE RATED SIGNIFICANTLY LOWER ON THE AGGRESSIVENESS OF THEIR RESPONSES (TO THE FIRST STORY) THAN WERE EXPERIMENTAL Ss LOW IN EP. FINALLY, SIGNIFICANTLY FEWER EXPERIMENTAL THAN CONTROL Ss SAID THE VICTIM WOULD CHOOSE AGGRESSIVE RETALIATORY RESPONSES ON ONE OR MORE OF THE FOUR OCCASIONS. THESE AND OTHER FINDINGS SUPPORT THE HYPOTHESIS THAT EMPATHY AROUSAL CAN REDUCE THE EXPERIENCE AND EXPRESSION OF AGGRESSION.

INTRODUCTION

THIS STUDY INVESTIGATES THE PROPOSITION THAT THE AROUSAL OF EMPATHY IN CHILDREN CAN MODIFY THE WAYS THEY EXPERIENCE AND EXPRESS AGGRESSION TOWARD OTHERS. RESEARCH TO DATE HAS SUGGESTED THAT THERE IS AN INVERSE CORRELATION BETWEEN GENERAL PREEXISTING EMPATHY LEVELS AND OVERALL AGGRESSIVE TENDENCIES (AS RATED BY CLASSROOM TEACHERS) IN THIRD AND FOURTH GRADE BOYS (e.g. FESHBACH AND ROE 1969, BRYANT 1982). OTHER STUDIES (e.g. STOTLAND 1969) HAVE USED PHYSIOLOGICAL MARKERS OF AFFECT (e.g. PALMAR SWEAT AND VASOCONSTRICTION MEASURES) TO DEMONSTRATE THAT EMPATHY CAN BE INDUCED IN SUBJECTS BY INSTRUCTING THEM TO IMAGINE WHAT ANOTHER PERSON FEELS LIKE.

THE CURRENT STUDY HAS ENDEAVORED TO BOTH INDUCE

EMPATHY IN A GROUP OF Ss TOWARD A SPECIFIC OTHER AND PREDICT HOW THE AROUSAL OF EMPATHY MIGHT AFFECT THE EXPRESSION OF AGGRESSION TOWARD THAT INDIVIDUAL.

SPECIFIC HYPOTHESES WERE AS FOLLOWS:

(H1) SUBJECTS WHOSE EMPATHY FOR A GIVEN INDIVIDUAL HAS BEEN EXPERIMENTALLY INDUCED WILL BE LESS LIKELY TO RESPOND AGGRESSIVELY TOWARD HIM THAN WILL CONTROL SUBJECTS.

(H2) SUBJECTS HIGH IN INITIAL, PREEXISTING EMPATHIC POTENTIAL (EP) WILL BE MORE AFFECTED BY EMPATHY INDUCTION TECHNIQUES THAN WILL Ss LOW IN EP.

(H3) SUBJECTS HIGH IN PREEXISTING EMPATHIC POTENTIAL WILL BE LESS LIKELY TO EXPRESS AGGRESSION TOWARD AN INDIVIDUAL THAN WILL Ss LOW IN EP.

METHOD

SUBJECTS

40 FOURTH GRADE VOLUNTEER BOYS FROM TWO MICHIGAN PUBLIC SCHOOLS.

	RESPONSE RATE	SES (BASED ON HOLLINGSHEAD)
SCHOOL 1	40%	40.8
SCHOOL 2	66%	34.8

MEASURES

EMPATHY

"AN INDEX OF EMPATHY FOR CHILDREN AND ADOLESCENTS" (IECA)

(BRENDA BRYANT - CHILD DEVELOPMENT 1982; 22 ITEM SELF-ADMINISTERED PAPER AND PENCIL QUESTIONNAIRE, YIELDING A SCORE OF EMPATHIC POTENTIAL OR "EP")

AGGRESSION

SUBJECTS' RESPONSES TO EACH SCENARIO WERE CODED FOR AGGRESSIVESS.

THERE WERE 6 CODED CATEGORIES COMPRISING 3 ORDINAL LEVELS

CATEGORY	ORDINAL LEVEL	GENERAL DESRIPTION
A,B	1	PASSIVITY
C,D	2	VERBAL AGGRESSION
E,F	3	PHYSICAL AGGRESSION

(INTERRATER RELIABILITY TAU =.81; RANGE =.76-.88)

PROCEDURES

FORTY FORTH GRADE BOYS WERE ADMINISTERED THE INDEX OF EMPATHY FOR CHILDREN AND ADOLESCENTS (IECA) TO DETERMINE PREEXISTING "EMPATHIC POTENTIAL" (EP). Ss WERE THEN MATCHED FOR EP AND ASSIGNED TO TWO GROUPS. THROUGH A DISPLACEMENT TECHNIQUE, BOTH GROUPS WERE THEN "INTRODUCED" TO A HYPOTHETICAL BOY NAMED JOHN. AN ATTEMPT WAS MADE TO AROUSE EMPATHIC FEELINGS FOR JOHN IN THE EXPERIMENTAL Ss BY GIVING THEM SAD INFORMATION ABOUT HIM AND BY INSTRUCTING THEM TO IMAGINE HOW THEY WOULD FEEL IN HIS SITUATION. CONTROL Ss WERE GIVEN "NEUTRAL INFORMATION" NOT DESIGNED TO EVOKE FEELINGS OF EMPATHY FOR JOHN.

FOUR SCENARIOS WERE THEN PRESENTED (IN RANDOM ORDER) IN WHICH JOHN WAS DESCRIBED AS BEHAVING OBNOXIOUSLY TOWARD ANOTHER BOY (NAMED MATTHEW). AFTER EACH STORY Ss WERE ASKED "WHAT WILL MATTHEW DO OR SAY WHEN JOHN DOES THIS?" RESPONSES TO THIS AND SUBSEQUENT QUESTIONS WERE CODED FOR AGGRESSIVE CONTENT.

RESULTS

VARIABLES

TWO INDEPENDENT VARIABLES WERE USED IN A 2 X 2 EXPERIMENTAL DESIGN.

VARIABLE 1 = GROUP ASSIGNMENT - EXPERIMENTAL OR CONTROL

VARIABLE 2 = EMPATHIC POTENTIAL (EP) - (BASED ON AN EP SCORE ABOVE OR BELOW THE MEDIAN)

	EMPATHIC POTENTIAL (EP)	
GROUP	Low	High
Experimental		
Control		

ONE DEPENDENT VARIABLE WAS USED - THE HIGHEST LEVEL OF AGGRESSIVENESS CODED IN SUBJECTS' RESPONSES TO EACH STORY. (SEE MEASURES SECTION)

FINDINGS

TWO FINDINGS WERE RELATED TO THE FIRST HYPOTHESIS (H1)

(H1) AGGRESSION SCORES OF EXPERIMENTAL Ss WERE SIGNIFICANTLY LOWER THAN CONTROL GROUP AGGRESSION SCORES BUT ONLY ON THE FIRST STORY PRESENTED. (TABLE 1, FIGURE 1)

(H1) SIGNIFICANTLY FEWER EXPERIMENTAL Ss GAVE "AGGRESSIVE RESPONSES" (CODED AS BEING IN CATEGORY C OR HIGHER) THAN DID CONTROL Ss. (TABLE 2)

ONE FINDING WAS RELATED TO THE SECOND HYPOTHESIS (H2)

(H2) AN INTERACTION EFFECT BETWEEN EMPATHIC POTENTIAL (EP) AND EMPATHY INDUCTION TECHNIQUES WAS NOTED ($F_{(1,36)} = 5.02$, $P < .04$). Ss HIGH IN EP WERE SIGNIFICANTLY MORE AFFECTED BY EMPATHY INDUCTION

TECHNIQUES THAN WERE Ss LOW IN EP. (TABLE 3)

ONE FINDING WAS RELATED TO THE THIRD HYPOTHESIS (H3)

(H3) NO SIGNIFICANT MAIN EFFECT FOR INITIAL, PREEXISTING EMPATHIC POTENTIAL (EP) WAS FOUND ($F_{(1,36)} = .04$). (SEE ALSO TABLE 3)

CONCLUSIONS

* EXPERIMENTAL COGNITIVE TECHNIQUES DESIGNED TO INDUCE EMPATHY CAN REDUCE THE INCIDENCE OF EXPRESSED AGGRESSION TOWARD A SPECIFIC OTHER IN THOSE Ss WITH A PREEXISTING HIGH CAPACITY FOR EMPATHY (HIGH EP).

* HIGH EP ALONE, ON THE OTHER HAND, IN THE ABSENCE OF EMPATHY-STIMULATING INFORMATION AND/OR "PUTTING ONESELF IN THE OTHER'S SHOES" IS NOT SUFFICIENT TO INHIBIT AGGRESSIVE INTENTIONS TOWARD A SPECIFIC OTHER.

* NON-EMPATHICALLY-INDUCED Ss (CONTROL GROUP) WERE RATED SIGNIFICANTLY HIGHER THAN EXPERIMENTAL Ss IN RESPONSE AGGRESSIVENESS ON THE FIRST STORY ONLY. PRELIMINARY PROTOCOL ANALYSIS SUGGESTS

THAT SOCIAL DESIRABILITY AND "UNINTENDED EMPATHY-AROUSING FACTORS" MAY ACCOUNT FOR THE SUBSEQUENT DROP IN AGGRESSION. (SEE FIGURE 1). FURTHER RESEARCH WILL BE NEEDED TO CLARIFY THIS QUESTION.

* THIS STUDY HAS DEMONSTRATED THE AMELIORATING EFFECT OF EMPATHY-INDUCING TECHNQUES ON <u>EXPRESSED AGGRESSION</u> IN A HYPOTHETICAL SITUATION AND IN DISPLACEMENT. FURTHER RESEARCH AND/OR NATURALISTIC STUDIES WILL BE NEEDED TO DETERMINE IF "IN-VIVO" BEHAVIOR CAN BE SIMILARLY AFFECTED.

* AS NOTED, OUR TREATMENT WAS EFFECTIVE ONLY WITH CHILDREN <u>ALREADY</u> HIGH IN EMPATHIC POTENTIAL. FURTHER RESEARCH WILL BE NECESSARY TO DETERMINE IF EP <u>ITSELF</u> CAN BE HEIGHTENED BY EXTERNAL INTERVENTIONS.

TABLE 1

AVERAGE AGGRESSION RANKINGS FOR EXPERIMENTAL AND CONTROL GROUPS BASED ON STORY ORDER[a]

GROUP	STORY NUMBER	AVERAGE RANK	MANN-WHITNEY U-SCORE
Experimental	1	16.87	127.5*
Control	1	24.12	
Experimental	2	20.62	197.5
Control	2	20.37	
Experimental	3	22.07	168.5
Control	3	18.92	
Experimental	4	18.77	165.5
Control	4	27.22	

[a]Based on three point ordinal scale

*p <.01 for a one tailed test

TABLE 2

PROPORTION OF EXPERIMENTAL AND CONTROL SUBJECTS RESPONDING AGGRESSIVELY TO AT LEAST ONE STORY

	AGGRESSION	
	ABSENT[A]	PRESENT[B]
GROUP		
EXPERIMENTAL	55%	45%
CONTROL	25%	75%

[A]Numbers indicate percent of Subjects who failed to respond aggressively to any story

[B]Numbers indicate the presence of aggression (category C or higher) on at least one story

$x^2 = 3.75$ $p = <.05$

TABLE 3

MEAN FIRST STORY AGGRESSION SCORES[A] OF EXPERIMENTAL AND CONTROL SUBJECTS WITH HIGH AND LOW EMPATHIC POTENTIAL

	EMPATHIC POTENTIAL (EP)[B]	
GROUP	LOW	HIGH
EXPERIMENTAL[C]	1.6	1.0
CONTROL	1.6	2.1

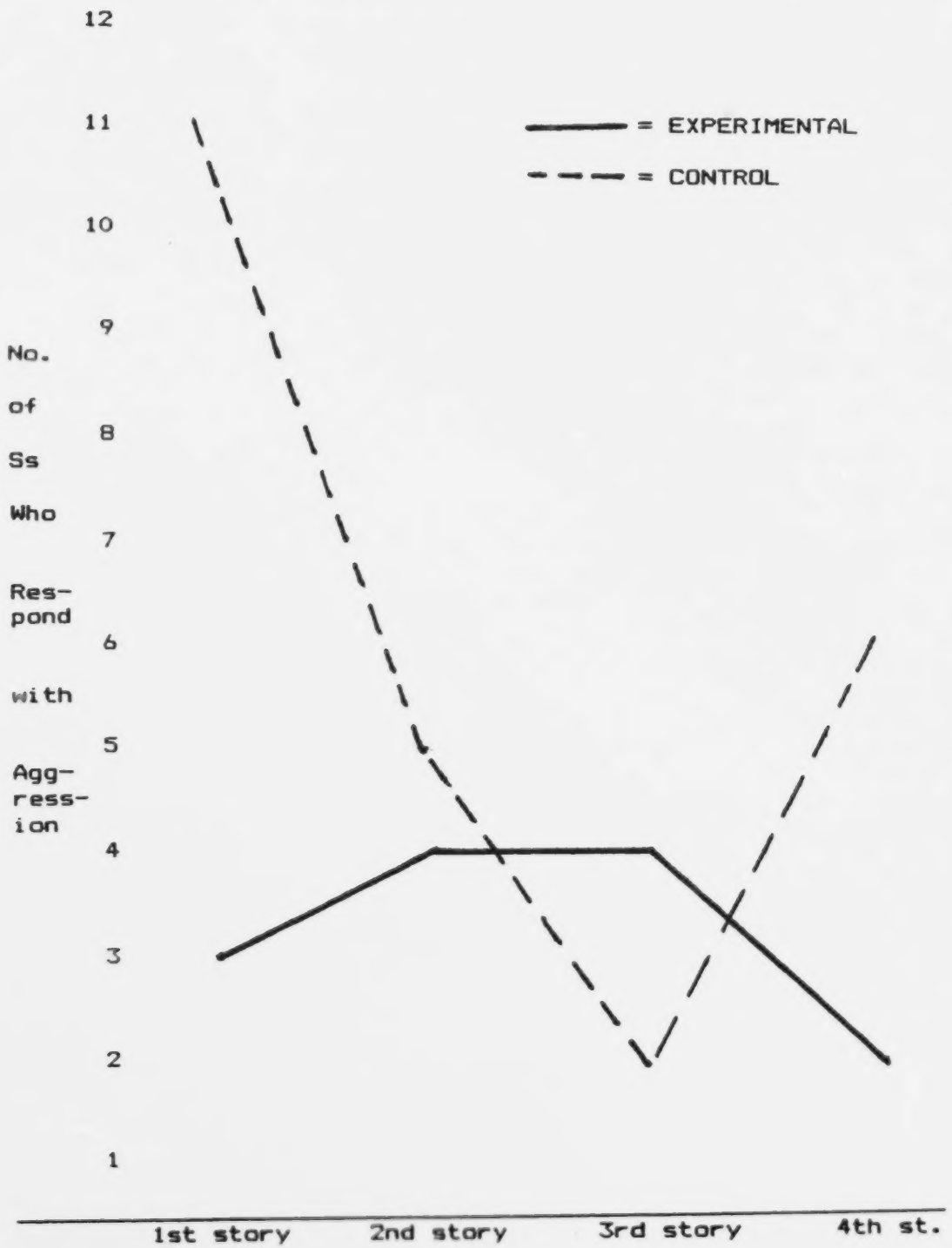
[A] Based on three point ordinal scale

[B] EP is based on IECA Scores (See measures). High EP is defined as an IECA score above the median and low EP is a score below the median.

[C] Paired Comparisons - Experimental High vs. Experimental Low. $p<.03$ for a one-tailed test.

FIGURE 1

NUMBER OF EXPERIMENTAL AND CONTROL SUBJECTS GIVING "AGGRESSIVE RESPONSES" (CATEGORY C OR HIGHER) — BY STORY ORDER



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